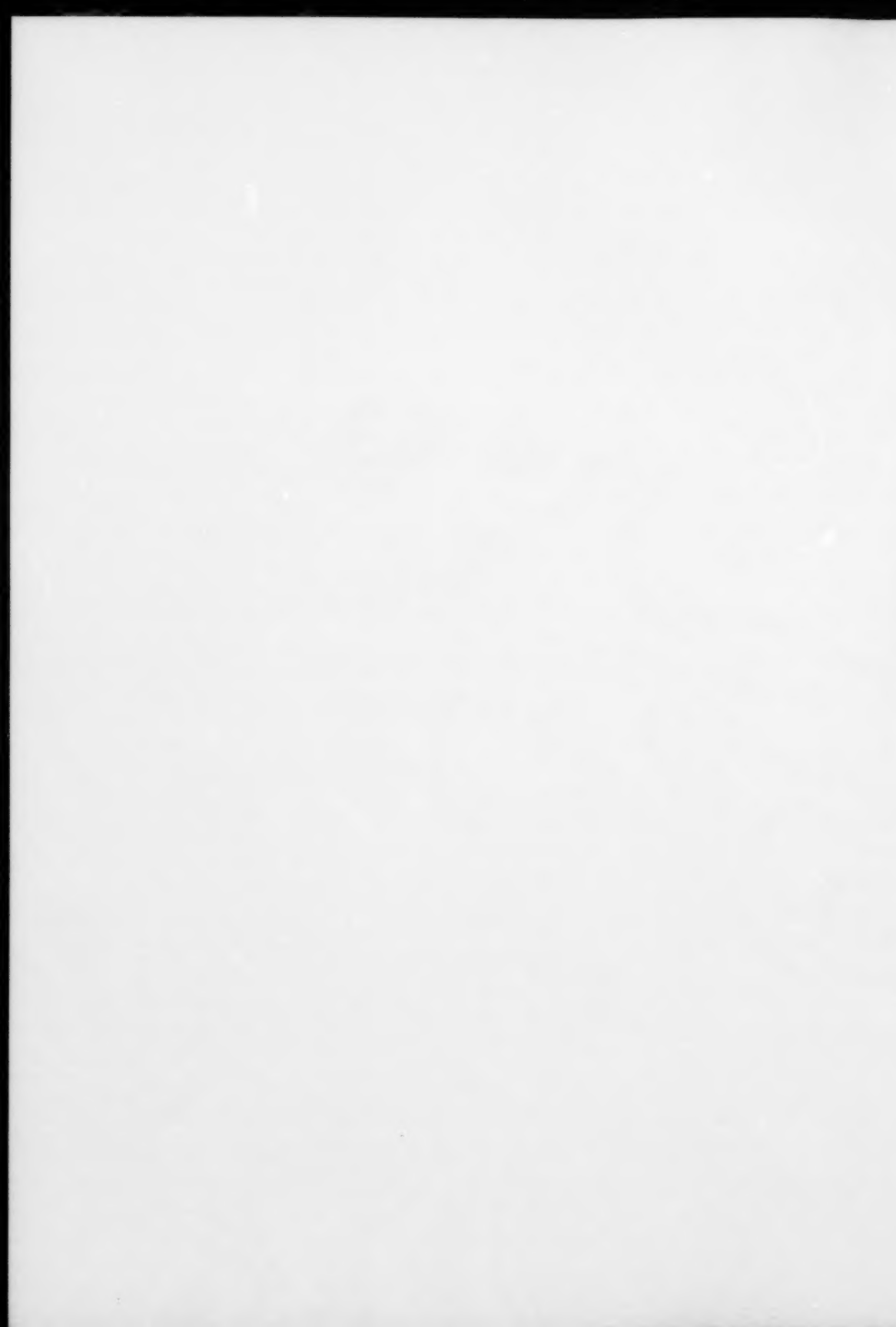


THE ONTARIO MENTAL HEALTH FOUNDATION 
 LA FONDATION ONTARIENNE DE LA SANTE MENTALE

annual report 1989/90



MAJOR DONORS FROM APRIL 1, 1989 TO MARCH 31, 1990

Birkett, C. W.

Dofasco

3M Canada Inc.

THE RUTH SCHWARTZ FOUNDATION

Research which will provide new knowledge about what contributes to emotional disturbances in children is of particular interest to the Schwartz Foundation.

The donation from the Ruth Schwartz Foundation, together with funds provided by the Ontario Mental Health Foundation, is supporting a study entitled: "Intergenerational transmission of attachment" at Queen's University. Dr. Diane Benoit is the principal investigator.

THE VELLEMAN FOUNDATION

The Velleman Foundation was incorporated in 1974 in honour of Leonard and Leonora Velleman. The Vellemans dedicated themselves to the care and treatment of severely mentally retarded infants and in 1951 established the Ontario Home for Mentally Retarded Infants. This facility is now known as the Plainfield Children's Home and is located in the community of Plainfield, a few miles north of Belleville, Ontario. The objectives of the Velleman Foundation are simple and clear; within the field of mental retardation to support programmes and initiatives both of individuals as well as of groups; to extend research and education; and to provide supplementary assistance in special cases.

Dr. Peter Szatmari of McMaster University carried out a study assisted by a grant made by the Velleman Foundation entitled: "The two year outcome of non-retarded autistic preschool children".

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The Ontario Mental Health Foundation is a charitable Foundation. Registration No. 0370494-11-13. Donations to further research into the causes of mental illness, and for the development of improved treatments are needed, and may be sent to:

Ontario Mental Health Foundation
365 Bloor Street East
Suite 1708
Toronto, Ontario
M4W 3L4

Receipts will be issued for income tax purposes.

**THE ONTARIO MENTAL
HEALTH FOUNDATION**

Established by Special Act
of Legislature of the Province
of Ontario, 1960-61.

**Members as at
March 31, 1990**

Sidney Freedman, LL.B.
Chairman, Toronto

Richard Neufeld, Ph.D.
Vice-Chairman, London

Joseph Aziz, B.A.,
Toronto

Andrea Baumann, R.N., Ph.D.,
Hamilton

Pierrette Beaudoin,
L'Orignal

James Chacko, Ph.D.,
Windsor

Rita Chrolavicius, LL.B.,
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Rochelle Reingold,
Richmond Hill

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Dugal Campbell, Ph.D.,
Executive Director

Louise Brown

Anita Macatangay

Jessie Paterson

Audrey Stefanovich

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N. Delva, M.D.	Kingston
J. Holden, Ph.D.	Kingston
R. Joffe, M.D.	Toronto
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P. Szatmari, M.D.	Hamilton
G. Winocur, Ph.D.	Peterborough

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C. Cunningham, Ph.D.	Hamilton
S. George, M.D.	Toronto
C. Gibson, Ph.D.	London
B. Humphrey, M.D.	Hamilton
J. Inglis, Ph.D.	Kingston
B. Jones, M.D.	Ottawa
R. Pivik, Ph.D.	Ottawa
S. Welner, Ph.D.	Montreal, P.Q.

MCSS REVIEW COMMITTEE

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D. Pederson, Ph.D.	London
F. Scott, M.D.	Hamilton
L. Tuff, Ph.D.	Hamilton

REPORT FROM THE CHAIR

The year beginning April 1989 and ending March 1990 has been productive for the Foundation. When I think about it, the wonderful flavour of the year's activity centred around the people who constituted the Board of the Foundation and in one way or another contributed towards its work. In this respect it is hard to believe that we made our farewells well over a year ago to Marlene Longdon, the past chairperson, and Wayne Squibb, the outgoing chairman of Finance. We also said good-bye to Vivian Wood, Professor of Nursing at the University of Western Ontario, who made a significant contribution to the work of the Foundation during the three years that she served with us. The members of the Board who accepted a second term (Dr. Richard Neufeld, Pierrette Beaudoin, Rita Chrolavicius, Peter Ferreira, Russell Jacobson, Iris Owen, Rochelle Reingold) have all made significant contributions to the functioning of the Foundation and will serve as guides and mentors to new members.

The Foundation during this last year received a grant from the Province of Ontario in the substantial amount of \$795,000 to support a trial of l-deprenyl study in the treatment of Alzheimer's Disease. A committee of the Foundation has been set up to review the project and its operation and the role which the Foundation would play in its administration. The Foundation has recently approved a protocol for this study and I am pleased to report that Dr. Morris Freedman at the Jewish Home for the Aged and its supporting hospital facility have been given the green light by the Health Protection Branch in Ottawa to pursue this important work.

The Foundation also received a special grant in the amount of \$92,650 toward an approved project on drug treatment in schizophrenia - an illness which is of continuing interest to the community at large.

Our major business for the year is approving grants to applicants who have satisfied our peer-review committees. The Fall competitions generated 97 grant applications and 41 fellowship applications.

We have supported a research grants programme of 50 projects with a total authorized budget of \$1,847,000. We have in addition supported a fellowships programme, of 39 awards with an authorized budget of \$1,108,000. We have managed a research grants programme for the Ministry of Community and Social services of 27 research projects with an authorized budget of \$1,188,963.

Perhaps one of the most important and difficult tasks for the year centred on the work done to plan a mental health survey to be executed in 1990. This involved the constitution of an advisory committee (chaired by a Foundation member, Ms. Chrolavicius) representative of interested organizations and specialists in epidemiology. It involved setting up a working party to manage the survey, composed of people expert in conducting surveys. We have had grants in the amount of \$500,000 from the Ministry of Health and \$300,000 from the Ministry of Community and Social Services to fund the start-up and preliminary costs. The Foundation is excited and keen to see the completion of this survey which, in addition to its intrinsic merits, will enable us to pursue one of the Foundation's stated goals that is to say the build up of a data bank. Our involvement in conducting the survey makes us a pro-active force within the whole field of mental health.

During the course of the year we have had scientific presentations to the membership by Dr. Brian Shaw, Toronto General Hospital; Dr. Philip Seeman, University of Toronto; Dr. Gerard Craigen, Toronto General Hospital; and Dr. Jo-Anne Finegan, Hospital for Sick Children. These presentations have been invaluable, particularly to acquaint the lay members about science and to give them positive feedback about adequacy of funding and the excellent quality of the researchers.

The Foundation has decided to do more to attract grant and fellowship applications from outside the Toronto area. This has been a concern of the Foundation membership and an attempt is being made by education and through publicity to broaden the base for applications, particularly from the smaller areas of excellence in the Province.

We have this year spent some time discussing the endowment fund of the Foundation. There has been much positive thought put to the use of endowment funds, the function of the endowment itself, and how its future could be assured. There are plans to make some definitive decisions in the coming year on the uses of the endowment fund and how it may be made to grow and to be a source of funds for particular programmes on the priority basis. The Foundation will convene a meeting of scientists and Board members to review research opportunities in mental health generally.

There will as well be a review and assessment of all meritorious research. There will be an ongoing attempt to reach out and communicate with the community at large, with people in the universities and hospitals with whom we have had such a good rapport and with the Ministry whose support is essential for the work we do. To effectively make the Foundation perform to its best there has to be a continuing interplay of the agencies and of the people that serve the cause of mental health in Ontario. It has been our aim in this last Foundation year to move the Foundation along this road and it is our hope and expectation that the Foundation will persevere in the future toward ever more successful work on behalf of the people it serves.

I would like on behalf of the Foundation to thank particularly the peer-review committees and their chairmen for the devoted work they have performed on behalf of our common goal. Dr. Bertha Madras and Dr. Simon Young (the committee chairs) have again this year performed in exemplary fashion. Mrs. Margaret Clark, Finance Director, retired from the service of the Foundation in 1989 after 15 years of service. She came to the Foundation in September 1974 from the Clarke Institute as executive secretary and later became the executive director. For many years she managed the Foundation and much of the success of the Foundation is owed to her active care, foresight and prudence. I wish to put on record the thanks of the members of the Foundation, her fellow staff members and, above all, the many scientists who sought her advice when they required help, for the many ways in which she promoted the success of the Foundation's investigators and the management of a granting agency. I would as well on behalf of the Foundation like to express our appreciation to the Ministry and to those attentive government agencies who, notwithstanding the constraints that arise in budgetary planning, have been helpful to the needs of the community in terms of those services that this Foundation can provide.

A stylized, handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke at the bottom.

Sidney Freedman, LL.B
Chairman

August 1990

THE OBJECTIVES OF THE ONTARIO MENTAL HEALTH FOUNDATION

In 1988 the Foundation approved the following statement:

The objectives of the Foundation shall be:

first, to support research which will improve and enlarge the knowledge required to promote mental health and to prevent, treat and cure mental disorders; second, to collect information about mental illness, and the sciences bearing upon mental illness, so that the Foundation may actively plan programmes which will maximise the benefits to be expected from the funds available to it; third, to provide information to practitioners so that knowledge generated by investigation is promptly disseminated and used; and fourth, to communicate the results of research to the general public in order to develop an understanding of the value of research in improving the treatment of the mentally ill.

THE FOUNDATION'S PROGRAMMES

To realise these objectives the Foundation provides funds to a number of programmes; in the case of the first objective the Foundation runs a research grants programme and a fellowships programme. Both programmes have been planned with the following general principles in view.

1. The first criterion in awarding funds will be the scientific quality of the proposed work. The best interests of the Foundation and the public will be served only if excellent applications for awards come forward, and from a wide range of research interests.
2. Given the limits of the Foundation's resources, and the many aspects of mental disorder, the Foundation can serve the Province best by promoting work on a broad range of topics. Therefore, the Foundation should not be identified with any one research focus.
3. In scientific research one aims at a moving target. The Foundation should, therefore, adopt policies that permit changing the mix of research and allow new investigators to enter the field.

The Foundation will support research work which deals with any of the biological, psychological or social factors which either foster mental health or lead to mental illness. The Foundation aims to improve knowledge about the prevention of mental disorder, and the rational and efficient diagnosis, treatment and rehabilitation of the mentally ill. The Foundation will accept applications dealing with any period of the life-span, any of the factors thought to cause psychopathology, and from any of the relevant scientific specialties. The Foundation has a particular interest in studies which address mental health problems of importance in Ontario.

The Foundation offers: 1) fellowships to those who wish to do research bearing on mental health; and 2) support for research projects undertaken by investigators in the field of mental health. There is also a limited programme of support for conferences and publications.

HOW TO APPLY FOR GRANTS

Detailed information and application forms are sent out to the research offices of universities and hospitals in Ontario, and are sent out to individuals on request from the Foundation (416) 920-7721.

REPORT ON THE SCIENTIFIC WORK OF THE FOUNDATION

1. Grants and Fellowships Programmes

In the Fall of 1988 the Foundation's review committees had dealt for the first time with applications for grants and fellowships under the "new" programme of funding instituted as one of the consequences of a review of the Foundation's work in 1987-88. In the Fall competition of 1989 the review committees reviewed for the second time applications submitted under these revised rules.

The number of applications for research grants received in 1989 was 97; this compares with a total of 125 applications received in the year before when the Foundation also ran an additional competition. There was a change in the mix of applications for the regular competition. There was a fall in the number of applications for the "small", or type E, grants (which are intended to support pilot work, feasibility studies and the like: 11 were received as against 26 in the previous year). The Foundation received for the first time applications for type C or "large" grants (with an annual value of approximately \$150,000). There was an increase in the number of applications (from 65 to 75) for "standard" research project grants and equipment grants. The receipt of applications for all the different categories suggests that the grants programme offers a reasonable variety of ways in which investigators may obtain funds for their work; the fact that applications were received in all categories allows one to infer that the mix of awards matches the needs of investigators.

A similar conclusion can be drawn from the applications submitted to the Fellowships committee. In the Fall of 1988 a total of 35 applications had been received; the figure for 1989 was also 35. In the Fall competition of 1989 11 applications were received for renewal of awards under the old programme and there were 24 applications for awards under the new Fellowships programme. In addition the Foundation received applications under its publications and conferences programme, and for the prizes it offers.

It appears that applicants are interested in all the categories of funding which the Foundation offers and the number of applications provides some guarantee that the quality of awards in all categories is strong.

2. Mental Health Priority and Ethical Considerations

The review committees set up by the Foundation devoted some time to discussing policy issues arising from two topics: ethical considerations; and setting research priorities.

In considering the applications which came forward to the Foundation in 1989 the review committees came to the conclusion that applicants should heed the guidelines published by the Medical Research Council to govern the conduct of investigators. The review committees concluded, more particularly, that applicants could provide more information to subjects when they are approached for participation in investigations and, when follow-up of patients is envisaged, more attention should be paid to how contacts are made and to maintaining records in a confidential way. The committee also discussed how "priority" is to be accorded to each application. It is clear that almost all the applications which come forward bear on some aspect of mental health; yet it is also clear that some can be accorded a higher priority than others. The issue before the committee was how to assess these gradations. Following discussion a new set of criteria for assessing mental health priority was adopted. These are reproduced in the paragraphs immediately below which show the numerical rating scale now in use:

"Mental Health Priority

- 3 Research which either is likely to have a direct impact on patient care, or is likely to lead to important advances in understanding of psychopathology, and addresses a major mental health problem

- 2 Research which either is likely to have an impact on patient care, or which will improve our understanding of a basic mechanism which has an important connexion to mental health
- 1 Research which has a modest chance of improving patient care or which contributes to the understanding of a basic mechanism bearing on mental health
- 0 Research in which consideration of issues related to mental health is not an important component"

3. Ontario Mental Health Survey (Ontario Health Supplement)

During 1989-90 the Foundation obtained support from the Ministry of Health, and from the Ministry of Community and Social Services, to carry out an epidemiological survey of mental health based on a random sample of the populace of Ontario. The Foundation has established an advisory group under the chairmanship of a member of the Foundation (Ms. Rita Chrolavicius) composed of representatives of organisations which will have an interest in the results of such a survey (for example, the Canadian Mental Health Association; Ontario Medical Association; Ontario Friends of Schizophrenics). The Foundation has also set up a working party of experts, chaired by Dr. D. R. Offord (Department of Psychiatry, McMaster University), whose task is to plan and to manage the survey. The working party reports to the advisory board which in turn reports to the Foundation. The task of the working party is two-fold: to select and prepare an instrument which will provide reliable data about psychiatric conditions based upon questions which can be put to respondents by a lay interviewer; and to manage the survey so that useful data is obtained for all parts of the Province. The respondents in the survey will have been seen as part of the Ontario Health Status Survey and consequently the survey is named: the Ontario Health Supplement. The contractor for the Ontario Health Status Survey is Statistics Canada which will also carry out the survey for the Ontario Mental Health Foundation.

During 1989-90 the working party put together a suitable survey instrument, which is based upon the Composite International Diagnostic Inventory (CIDI) - a questionnaire which has been developed by the World Health Organisation and has been used in a number of test trials in Europe. The variant of the CIDI which has been worked up for use in Ontario has been developed in collaboration with scientists at the University of Michigan who will be conducting a parallel survey in the United States at about the same time as the Health Supplement will be done in Ontario.

The survey instrument also contains sections which have been specifically developed for use in Ontario, taking into account the health system as it exists. These sections cover: the utilisation of health services; risk factors which may pre-dispose individuals to mental disorder; dementia; and an assessment of a respondent's ability to function in relation to mental well-being. A pretest of the questionnaire is planned for the early summer of 1990; the main survey, assuming the pre-test goes well, will be done in late 1990.

4. The Impact of Housing on Mental Health

In April, 1989, the Foundation put on a one-day workshop devoted to the topic of housing and its relations to mental health. The workshop was addressed by speakers from a variety of disciplines and centres, and attracted a large number of registrants; the planned total of 80 in the audience was reached.

**AUDITORS' REPORT TO THE MEMBERS OF THE
FOUNDATION AND THE PROVINCIAL AUDITOR**

We have examined the balance sheet of The Ontario Mental Health Foundation as at March 31, 1990 and the statements of operations, changes in operating fund, changes in endowment fund, changes in M.C.S.S. fund, changes in the L-Deprenyl fund and changes in the Ontario Health Supplement fund for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the Foundation as at March 31, 1990 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Coopers & Lybrand

Chartered Accountants

Toronto,
Ontario
June 15, 1990

THE ONTARIO MENTAL HEALTH FOUNDATION

BALANCE SHEET AS AT MARCH 31, 1990

ASSETS

	1990 \$	1989 \$
CURRENT ASSETS		
Cash and short-term investments - at cost, which approximates market, plus accrued interest	4,238,284	3,570,411
Advances to grantees (note 2)	582,085	282,814
Unspent awards receivable (note 3)	57,404	50,995
Other accounts receivable (note 4)	24,709	29,253
Prepaid expenses	603	1,387
	4,903,085	3,934,860
FIXED ASSETS		
Furniture and fixtures - at cost	77,919	66,021
Less: Accumulated depreciation	39,367	35,899
	38,552	30,122
TOTAL ASSETS	4,941,637	3,964,982

LIABILITIES

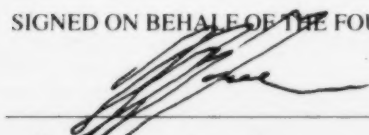
CURRENT LIABILITIES

Research and equipment grants, fellowships and associateships payable	359,660	315,911
Accounts payable and accrued liabilities	20,401	53,520
Grants received, payable in future years	—	200,414
	380,061	569,845

EQUITY

OPERATING FUND	900,168	510,886
ENDOWMENT FUND (note 5)	2,079,993	1,866,472
M.C.S.S. FUND - HELD IN TRUST (note 6)	391,117	222,579
L-DEPRENYL FUND (note 7)	794,462	795,200
ONTARIO HEALTH SUPPLEMENT FUND (note 8)	395,836	—
	4,561,576	3,395,137
TOTAL LIABILITIES AND EQUITY	4,941,637	3,964,982

SIGNED ON BEHALF OF THE FOUNDATION


 Rita A. Chwofaricis
 Chairman

Vice-Chairman

**THE ONTARIO MENTAL HEALTH
FOUNDATION
STATEMENT OF OPERATIONS
FOR THE YEAR ENDED MARCH 31, 1990**

	1990	1989
	\$	\$
REVENUE		
Province of Ontario (note 9)	3,332,714	3,377,336
Investment income	151,952	115,395
Donations (note 10)	33,646	37,502
Educational program	—	6,099
	<u>3,518,312</u>	<u>3,536,332</u>

EXPENDITURE

Awards -

Research grants	1,711,410	1,794,044
Major equipment	1,029	3,763
Research associateships	352,975	394,997
Research scholarships	92,080	135,981
Fellowships		
Long-term	145,583	165,973
Research	345,923	200,990
Training awards	59,064	47,250
Research studentships	67,770	90,150
Clinical research and development scientist	—	34,398
In-house research	1,500	—
Conference and workshops	19,101	—
	<u>2,796,435</u>	<u>2,867,546</u>
Administration (schedule of expenses)	275,838	318,371
Committee meetings	56,757	43,883
	<u>3,129,030</u>	<u>3,229,800</u>

EXCESS OF REVENUE OVER EXPENDITURE FOR THE YEAR	<u>389,282</u>	<u>306,532</u>
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**STATEMENT OF CHANGES IN
OPERATING FUND
FOR THE YEAR ENDED MARCH 31, 1990**

	1990	1989
	\$	\$
BALANCE - BEGINNING OF YEAR	510,886	204,354
EXCESS OF REVENUE OVER EXPENDITURE FOR THE YEAR	389,282	306,532
BALANCE - END OF YEAR	<u>900,168</u>	<u>510,886</u>

**STATEMENT OF CHANGES
IN ENDOWMENT FUND (note 5)
FOR YEAR ENDED MARCH 31, 1990**

	1990	1989
	\$	\$
BALANCE - BEGINNING OF YEAR	1,866,472	1,695,597
INVESTMENT INCOME	213,521	170,875
BALANCE - END OF YEAR	<u>2,079,993</u>	<u>1,866,472</u>

**STATEMENT OF CHANGES IN M.C.S.S.
FUND - HELD IN TRUST (note 6)
FOR THE YEAR ENDED MARCH 31, 1990**

	1990	1989
	\$	\$
BALANCE - BEGINNING OF YEAR	222,579	534,135
GRANTS RECEIVED	1,144,876	828,291
INVESTMENT INCOME	60,647	46,290
	<u>1,428,102</u>	<u>1,408,716</u>
RESEARCH GRANTS	1,036,985	1,186,137
BALANCE - END OF YEAR	<u>391,117</u>	<u>222,579</u>

**STATEMENT OF CHANGES IN
L-DEPRENYL FUND
(note 7)
FOR THE YEAR ENDED MARCH 31, 1990**

	1990	1989
	\$	\$
BALANCE - BEGINNING OF YEAR	795,200	—
GRANTS RECEIVED	—	795,200
INVESTMENT INCOME	93,219	—
	<u>888,419</u>	<u>795,200</u>
RESEARCH GRANTS	93,957	—
BALANCE - END OF YEAR	<u>794,462</u>	<u>795,200</u>

**STATEMENT OF CHANGES IN
ONTARIO HEALTH SUPPLEMENT
FUND (note 8)
FOR THE YEAR ENDED MARCH 31, 1990**

	1990	1989
	\$	\$
BALANCE - BEGINNING OF YEAR	—	—
GRANT RECEIVED	500,000	—
INVESTMENT INCOME	21,745	—
	<u>521,745</u>	<u>—</u>
EXPENDITURES	125,909	—
BALANCE - END OF YEAR	<u>395,836</u>	<u>—</u>

THE ONTARIO MENTAL HEALTH FOUNDATION NOTES TO FINANCIAL STATEMENTS FOR THE YEAR ENDED MARCH 31, 1990

1. Depreciation

Depreciation of furniture and fixtures is calculated using the declining balance method at an annual rate of 10%.

2. Advances to Grantees

Certain projects are approved for funding for more than one fiscal year. Advances to grantees represent unspent funds from the current year's award which are to be carried forward and added to the following year's award.

3. Unspent Awards Receivable

Unspent awards receivable represent unspent funds at the time a project ends. Grantees are required to return this money to the Foundation.

4. Other Accounts Receivable

The Foundation incurs cost in the administration of the M.C.S.S. fund which are directly reimbursed by the M.C.S.S. This amount represents the balance owing to the Foundation.

5. Endowment Fund

The endowment fund has arisen through bequests to the Foundation. The assets of the fund at March 31, 1990 comprised cash and short-term investments of \$2,079,993 (1989 - \$1,866,472).

6. M.C.S.S. Fund - Held in Trust

In 1986 the Ministry of Community and Social Services (M.C.S.S.) through an Order-in-Council was awarded an interprovincial lottery allocation for 1986 - 1987 and beyond. These funds are used to support applied research and program evaluation studies related to the handicapped and the elderly over a five year period. The Foundation administers these funds under agreement with the Ministry.

The net assets of the fund at the balance sheet date comprise:

	1990 \$	1989 \$
Cash and investments at cost	111,337	84,339
Advances to grantees	274,973	132,038
Unspent awards receivable	17,870	15,576
	404,180	231,953
Less: Grants payable	13,063	9,374
	391,117	222,579

7. L-Deprenyl Fund

The Ministry of Health provided the Foundation with funds exclusively to cover the costs of new research into the effects of L-Deprenyl on Alzheimers Disease. The assets of this fund at March 31, 1990 comprised cash, advances to grantees and short-term investments of \$794,462 (1989 - \$795,200).

8. Ontario Health Supplement Fund

During the year the Ministry of Health provided the Foundation with funds exclusively to cover the costs of conducting and administering the Ontario Mental Health Survey. The assets of this fund at March 31, 1990 comprised of cash and short-term investments of \$395,836 (1989 - \$Nil).

9. Revenue from the Province of Ontario

During 1988/89 the Foundation received a one time special grant from the Ministry of Health in the amount of \$480,000 of which the balance of \$107,764 has been recognized in revenue during the year.

10. Donations

Donations are recorded when received by the Foundation and are used in the support of research as directed by the members of the Foundation.

11. Award Commitments

The Foundation has made commitments of approximately \$5,177,000 to fund projects over the next three fiscal years as follows:

	\$
1990/1991	2,897,000
1991/1992	1,739,000
1992/1993	541,000

12. Operating Lease

The minimum annual lease payments under an operating lease for the premises are as follows:

	\$
1990/1991	44,215
1991/1992	44,215
1992/1993	44,215
1993/1994	44,215
1994/1995	51,186
Thereafter	248,062
	476,108

SCHEDULE OF EXPENSES FOR THE YEAR ENDED MARCH 31, 1990

	1990 \$	1989 \$
Administration		
Salaries	219,778	259,327
Employee benefits	18,491	17,284
Office expenses	50,583	57,835
Rent	37,314	28,729
Consultant's fees and expenses	2,006	3,114
Audit and legal	9,835	7,595
Telephone	6,267	5,010
Depreciation - office furniture and fixtures	3,712	2,413
Reimbursed by M.C.S.S.	(72,148)	(62,936)
	275,838	318,371

RESEARCH PROJECTS AND FELLOWSHIPS (1989-90)

A question which is sometimes put to the Foundation is: has the Foundation a policy of favouring one kind of research, say applied investigations as against basic investigations? The objectives of the Foundation, set forth earlier in this report, show that the remit of the Foundation covers all investigations with a bearing on mental health. However the review committees assess each proposal in terms of mental health "priority" and this assessment forms part of the final rating given to each application. In 1989 the review committees relied for the first time upon a formally defined scale of priorities (see report on the scientific work of the Foundation on page 7). The figures below divide the grants made by the Foundation in 1989-90 into categories according to the nature of the investigation (the figures for 1988-89 are provided for comparison).

The breakdown of the Foundation's research uses a variant of the classification developed by the Health Research and Development Council of Ontario. There are five broad divisions to analyse the nature of the research effort, viz:

1. research aimed at the description of disorders (natural history; epidemiology); the development of measuring devices and tests;
2. The search for basic physiological, psychological or social mechanisms underlying normal or abnormal conduct (basic research) often using animal "models" or laboratory preparations;
3. research which tests explanations (physiological, psychological or social) for a particular disorder (applied basic research) often using patients as experimental subjects;
4. studies of diagnosis, treatment and rehabilitation of a disorder (clinical research);
5. studies of health services (operations research); studies aimed at health promotion and disease prevention; equipment grants.

An investigation may fit into more than one category (as a consequence, some decisions are near-arbitrary); the tables below show the Foundation's work along this broadly conceived basic-to-applied continuum.

Research grants

In the Fall of 1989 the Foundation received 88 applications for research grants and 9 applications for major equipment grants; of these new applications 24 were approved for support. During the year 1989-90 the Foundation supported 50 research projects; of these 3 were supported by an additional grant to the Foundation from the Ministry of Health. In addition 27 grants were made from funds provided by the Ministry of Community and Social Services.

Table 1: project and equipment grants shown by type of research and by funding source:

	1988-89		1989-90	
	OMHF	MCSS	OMHF	MCSS
1. Description, measurement	6	8	4	5
2. Basic research	22	2	13	2
3. Applied basic research	14	5	19	8
4. Diagnosis treatment	7	19	11	8
5. Services; health promotion	<u>3</u>	<u>0</u>	<u>3</u>	<u>4</u>
	52	34	50	27

Fellowships

In the Fall of 1989 a total of 41 applications were received for new individual awards, for renewals of individual awards and for the conference and publication programme; of these applications 18 were approved for support.

During the year 1989-90 the Foundation supported 38 individuals and one conference. The individual awards ran from studentships (the most junior) to research associates (senior career awards).

Table 2: Individual awards shown by type of research

	1988-89	1989-90
1. Description; measurement	5	4
2. Basic research	16	13
3. Applied basic research	12	12
4. Diagnosis; treatment	4	7
5. Services; health promotion	<u>1</u>	<u>2</u>
	38	38

RESEARCH GRANTS 1989-90

LAKEHEAD UNIVERSITY, THUNDER BAY

Dr.M.Bouffard & Dr.P.Crocker \$10,124

The effect of general and specific strategies upon printing performance of mentally handicapped children

Mentally handicapped children experience difficulties in learning standard school tasks. In this project a printing task was selected because it is one of the first culturally normative skills learned in school. The aim is to provide children with the ability to print so that they avoid an initial failure when they enter school.

MCMASTER UNIVERSITY, HAMILTON

Dr.G.Brown & Dr.C.Mancini \$46,833

Suicide and pineal function

Those who attempt suicide and those who complete suicide come from separate but overlapping groups; the difficulty is to predict into which group an individual will fall. Dr. Brown is examining biochemical measures which may allow one to estimate the chances of a completed suicide attempt.

Dr.G.Brown \$13,172

Tryptophan depletion as a probe for serotonin responsivity

This investigation is a preparatory study for an examination of changes in brain serotonin (which is thought to be important in depression, suicide, aggression and obsessive compulsive disorder). A group of normal subjects will take a diet deficient in Tryptophan. These subjects will subsequently be given blood tests; the aim is to make possible a series of uniform measures which can be correlated with physiological alterations. Such a technique can be used to assess the status of patients who have the disorders thought to depend upon the functional integrity of brain serotonin systems.

Dr.P.Chang \$55,294

Cloning of a gene associated with neurodegeneration

Dr. Chang has isolated the cause of a disorder which can produce severe neurodegeneration in children: deficiency in a particular substance-

arylsulfatase - A. She has also observed that not all individuals with the deficiency suffer from the disorder. Her investigation is designed to investigate what factors prevent some individuals who have the deficiency from exhibiting the disease and which factors permit the disease to flourish in others. Her hypothesis is that there is a genetic basis for the occurrence of the disorder and that some individuals have a genetic system which provides them with protection.

Dr.S.Denburg & Dr.R.Carbotte \$41,967

Cognitive deficits associated with brain cross-reactive lymphocytotoxic antibodies in Systemic Lupus Erythematosus

A new field of investigation is the study of psychological disorders in relation to the immune system. Dr. Denburg has discovered that changes in visual and spatial abilities are linked with alterations in immune capacity. She is now trying to describe the cognitive changes and to link them to measures of the immune system's effectiveness.

Dr.B.Levy \$46,244

The training and generalization of reading related skills

The purpose of the proposed research is to investigate, along lines that have already been started, two remedial techniques that successfully increase word naming speed and the text reading rate of poor readers in primary school classes. So far the techniques have been successful in producing training benefits in the laboratory; the investigation is now being carried further to see if the effects which are produced will generalize beyond the laboratory. These investigations will be of importance if it can be shown that they will lead to methods by which teachers can train children in regular schools.

Dr.R.Mishra \$40,306

Studies on the interaction of a hypothalamic factor (l-prolyl-l-leucyl-glycinamide) with biogenic amine receptors in CNS

This investigation is to gain a better understanding of the way in which the melanocyte-stimulating hormone inhibiting factor identified as L-prolyl-l-leucyl-glycinamide modulates

dopamine (D_1 and D_2) receptors. The results of this study will further our knowledge of basic neuronal control mechanisms, and will have direct implications for the therapy of neurological disorders (such as tardive dyskinesia and Parkinsonism) and relapse psychosis of schizophrenia.

Dr. L. Niles **\$42,500**

Brain target sites for melatonin and n-acetyl-5-methoxy kynurenamine: modulation of GABAergic function and cyclic nucleotide synthesis

The pineal gland, through the agency of melatonin and other hormones, influences brain homeostasis, neurotransmitter function and eventually behaviour. The importance of this gland as a factor in causing abnormal central neurotransmission in mental illness is not well understood but it is possible that aberrant pineal activity is involved in the origin of a number of mental disorders. This project is aimed at elucidating the biochemical mechanisms which underline pineal-brain interaction, the physiological significance of this interaction and its implications in the aetiology and treatment of mental dysfunction and more particularly, disorders of affect and mood.

Dr.M.Steiner & Dr.E.Werstiuk **\$53,800**

Adrenergic receptor responsiveness in depression

One theory to explain mood disorders is failure of regulation of a central biochemical system (noradrenergic system). Dr. Steiner and Dr. Werstiuk are testing the hypothesis that depressed patients have an overactive noradrenergic system and that treatment with either electroconvulsive therapy or lithium corrects the imbalance.

Dr.C.Whelton **\$14,892**

Circadian rhythm of homovanillic acid in normal controls and schizophrenic patients with good and with poor responses to neuroleptics

Not all schizophrenic patients respond to drug treatment. Dr. Whelton hypothesizes that dopaminergic activity, generally elevated in this disease, has not increased in all patients. He

plans to examine his idea by looking at homovanillic acid cycles in patients. He expects some to have normal plasma levels and circadian rhythms and that it is these patients who will respond poorly to drug treatments.

UNIVERSITY OF OTTAWA

Dr.P.Hrdina & Dr.Y.Lapierre **\$54,000**

Therapeutic range and prospective dosing of antidepressants

This project is designed to investigate whether there is a useful relation between the levels of the drug which can be measured in blood in depression and the outcome of drug treatment.

QUEEN'S UNIVERSITY, KINGSTON

Dr.D.Benoit **\$71,562**

Intergenerational transmission of attachment

Dr. Benoit will examine patterns of attachment formation across three generations. The method is to examine the formation of attachments between mothers and their newborn children. Methods describing attachments are now available and are known to give reliable results. In addition, an examination will be made of the attachment between the mothers of the infants and their mothers (the grandmothers) in order to find out if the formation of attachments in the previous generation is an important factor in controlling of the formation of attachment in the current generation.

(This project is assisted by the Schwartz Foundation)

Dr. M.Handley-Derry **\$51,827**

School achievement at age 9-10 years of a selected population of children at risk in the perinatal period

The purpose of this investigation is to establish the value for predicting academic achievement in children 9 and 10 years of age of data about fetal and newborn complications, motor and cognitive deficits at one year of age and motor and cognitive and language deficits at four years of age and measures of the home environment made at both 1 and 4 years of age. The aim of the study is to find out more about the connexion between factors in very early life and school difficulties. The children form part of a

cohort first seen at Kingston nearly a decade ago; some were low-birth-weight as infants and the remainder are healthy controls.

Dr.J. Holden

\$56,700

The use of DNA markers in carrier assessment of the fragile-x syndrome and other forms of x-linked mental retardation

X-linked mental retardation affects about one in every 500 males; about one in 200 females have a 50% chance of being carriers for the disorder and about one-third of this group are known to have a disorder called the "Fragile-X Syndrome". The objective of the investigation is to find ways in which reliable determinations of the carrier status of females at risk for the disorder can be made and also to find ways of making a prenatal diagnosis of the syndrome. The aim of the investigation is to improve the knowledge available to genetic counsellors and, in the long run, to prevent the occurrence of individuals who have X-linked forms of mental retardation.

Ms.R.Pranger

\$4,000

Occupational stress and burnout: a concern for occupational therapy personnel employed at Ontario psychiatric hospitals

There is evidence that occupational stress and burnout are concerns for health care professionals. The purpose of this investigation is to examine burnout among occupational therapy personnel who work in psychiatric institutions in Ontario; a second aim is to determine if there is a relation between burnout, factors in the work environment and characteristics of the individual.

UNIVERSITY OF TORONTO

Dr.B.Fried

\$1,167

Performance, structure, and interorganizational relationships in Ontario general hospital psychiatric units

The study is the outcome of another investigation (funded by the National Health Research and Development programme) which provided instruments to allow the investigators to examine the organization and management of Ontario general hospital psychiatric units.

Dr.D.McLachlan & Dr.M.Percy

\$46,611

Gene expression in Alzheimer's disease

The etiology of some forms of Alzheimer's disease is unknown; in the familial form there appears to be a mutation on chromosome 21. The aim of this investigation is to identify the gene responsible for familial Alzheimer's disease using modern techniques of molecular biology.

Dr. T.Morley

\$50,000

Canadian Brain Tissue Bank

The Canadian Brain Tissue Bank is an important research resource for Canadian neuroscientists. The staff of the Bank collect brain tissue at autopsy from individuals who are known to have suffered from psychiatric and neurological diseases. The tissue is carefully examined, dissected and stored. Investigators who require particular kinds of tissue representative of the diseases known to have existed in individuals can obtain it from the Bank. History taking, anatomical dissection and chemical preparation are important in maintaining the Brain Tissue Bank as a resource for neuroscientists.

Dr.P.Seeman \$90,771

Dopamine receptors in schizophrenia: a program approach

Dr. Seeman is carrying out a systematic examination of one of the major theories for the disorder schizophrenia. Of the theories put forward to explain schizophrenia a substantial body of evidence now suggests that abnormal brain function to do with the neurotransmitter dopamine is important. The hypothesis which Dr. Seeman is examining proposes that there may be an abnormality in brain dopamine D_1 and D_2 receptors. He is examining this proposal in a number of ways, for example, to see if there is a change in the D_1/D_2 ratio or to find out if there is an abnormal function of the D_2 receptor.

Dr.P.Seeman

\$55,773

Isolation of normal and schizophrenic brain D_2 dopamine receptors

The object of this investigation is to isolate and purify the dopamine receptor in the brain. The working hypothesis is that the dopamine D_2 molecular structure is abnormal in schizophrenia.

**UNIVERSITY OF WESTERN ONTARIO,
LONDON**

Dr.I.Gotlib **\$13,750**

**The effects of postpartum depression on
infant development**

Mothers, who have delivered a baby, sometimes fall victim to a depression. Dr. Gotlib is examining the nature of the interactions between depressed mothers and their infants.

Dr.D.Pederson **\$37,055**

Antecedents of attachment security

There is evidence that attachment security is a central factor in the mental health of the infant and the young child. Data on maternal stress and on social support given to mothers which may influence the formation of attachments is needed to provide specific information about the way in which stress and support influences attachment. This investigation is designed to find out more about family stress, the response of families to distress and the way in which these influence the adjustment of small infants.

ST.JOSEPH'S HOSPITAL, LONDON

Dr.A.Stoessl **\$57,228**

**Peptide-dopamine interactions in aging and
tardive dyskinesia**

The general objective of this investigation is to obtain a better understanding of neurochemical function in the nervous system - particularly to do with the dopamine system - in patients who are given drugs for the treatment of psychotic disorders. In some cases the drugs produce side-effects which are manifested as disorders of movement. These side-effects are serious and are important in considering whether treatment should be prolonged. The investigation is designed to find out what the neurochemical mechanisms are which lead to the movement disorders found in patients treated with long-term neuroleptic drugs.

CLARKE INSTITUTE OF PSYCHIATRY

Dr.T.Babiak **\$11,878**

**The doctor-patient relationship: the effect of
cultural distance on therapeutic empathy**

Relations between doctors and patients are

thought to be an important component in effective medical treatment. Therapeutic empathy, a doctor's ability to understand the patient's suffering and situation may be influenced when there is a difference between the cultural backgrounds of patient and doctor. This study examines the effects of cultural distance on therapeutic empathy in samples of medical students.

Dr.R.Bagby & Dr.R.Rogers **\$8,261**

**Applied study for evaluating three measures
of fitness to stand trial**

Enforced treatment of psychiatric patients has a controversial history. It now appears that referrals for fitness to stand trial may be an avenue for the enforced treatment of individuals with a psychiatric impairment. This project aims to establish a standardized method to establishing fitness to stand trial.

Dr.B.Martin & Mr.G.Bean **\$39,482**

**An empirical investigation of the competency
of psychiatric patients to make informed
treatment decisions about ECT**

The investigators are constructing a questionnaire which will enable one to distinguish the grounds on which consent to treatment is given or refused. The aim is to determine whether patients refusal of, or consent to, treatment is compatible with recent legal and research criteria about what constitutes a competent decision.

Dr.G.Remington **\$14,375**

The quantitative assessment of akathisia

Movement disorders may be an unwanted side-effect of drug treatments for psychosis. Dr. Remington is using a sensitive motion-detection instrument to detect and record subtle changes in body movements. The aim is to detect akathisia because the unpleasant effects of the movement disorder influence compliance with treatment. Detecting movement disorder early in treatment may be of importance in designing improved regimens.

Dr.L.Stermac **\$35,520**

**The treatment of sexual offenders: compara-
tive outcome study**

The incidence of sexual violence reported against women and children has increased demands for the development of the active

treatment of sexual offenders. This study is designed to evaluate the long-term effects of a multi-dimensional treatment programme aimed at reducing recidivism among sexual offenders.

Dr.S.Tang

\$44,219

Solubilization, purification and initial characterization of human plasma imipramine binding sites

Pharmacological studies have shown that there is a malfunction of brain neurotransmitter systems in affective illness. Dr. Tang is examining aspects of the biochemical system of the brain which are known to be disordered in depression.

Dr.B.Toner

\$49,245

Cognitive-behavioural group therapy for irritable bowel syndrome

The irritable bowel syndrome is prevalent, chronic, and debilitating; it has substantial cost implications for the health care system. The importance of psychological factors in the development and maintenance of the syndrome has been well documented but to date specific psychological treatments have not been evaluated in control trials. The main aim of this study is to evaluate the effect of a psychological therapy when it is compared with i) a matched condition in which the patients are given attention and ii) conventional medical therapy. The investigation is a controlled trial of psychological treatments for what, up to now, has been thought of as a somatic disorder.

HOSPITAL FOR SICK CHILDREN

Dr.S.Goldberg & Dr.R.Simmons

\$39,885

Social functioning of preschoolers with congenital heart disease

This investigation follows a group of children with congenital heart disease and compares them with healthy control children. The index children were first seen when their heart disease was detected. The purpose of this phase of the study is to assess the predictive utility of early measures of infant health and temperament, parent stress and infant mother-attachment in relation to social competency and the development of problems at 2-3 years of age. The identification of predictors of behaviour

problems in this population, which is at high risk for developing disorders of conduct, is intended to guide appropriate support and intervention so as to improve outcomes.

Dr.S.Goldberg & Dr.R.Simmons

\$38,265

Severity of congenital heart disease and early development

The purpose of this investigation is to examine the effects of severity of illness on the psychosocial development in the first years of life of infants who have congenital heart disease. Medical measures of severity of illness are established from the clinical record and different groups will be followed to find out if severity of the illness is related to mental and motor development and to compare ratings of home interactions and attachment in children with differing orders of severity. It is not yet clear if severity of illness is an important factor in accounting for the high rates of the behavioural and academic problems which are seen in these children when they get into school.

Dr.M.Lovett

\$72,293

Training and transfer effects in dyslexic children's response to remedial treatment

This investigation is aimed at establishing what constitutes effective treatment for specific reading disability; this disorder is estimated to affect 11% of boys and 3% of girls even when they are of average or above average intelligence. Developmental reading disability can be a lifelong disorder and is associated with an increased risk for adult problems in both occupation and emotions. One factor which has been disappointing in the previous investigations is that improvement seen in the laboratory does not generalize beyond the experimental situation; it is therefore important to find out how techniques which lead to improvement can be made available for classroom use.

MOUNT SINAI HOSPITAL, TORONTO

Dr.D.Silver

\$27,364

The long-term follow-up and natural history of borderline patients

A diagnosis which is hard to make, and which

has unclear consequences, is borderline personality disorder. Until recently there had been little research in the long-term course and outcome of this disease. It was unclear, for example, if they developed more serious disorders such as schizophrenia or if they "burned out". This investigation follows a group of patients with the disorder to find out the natural history of patients for whom this diagnosis is made.

SUNNYBROOK MEDICAL CENTRE, TORONTO

Dr.S.Black **\$33,959**

Extinction and unconscious access in the neglect syndrome

The neglect syndrome occurs following stroke: the patient with, for example, a lesion in the right brain, may be unable to appreciate signals which come from his left-hand side. Dr. Black is investigating the hypotheses that the neglect of events in the patient's surroundings are the consequence of an overall loss of arousal or a systematic bias in attention to one direction.

TORONTO GENERAL HOSPITAL

Dr.G.Rodin & Dr.C.Littlefield **\$41,691**

Predicting adjustment and psychosocial morbidity in the medically ill

This investigation comprises two studies. The first is designed to further our understanding of how people adapt to chronic medical illness; the aim is to determine the contribution to the adjustment of the individual of such things as previous personality, the severity of the disease and current circumstances. The second part of the study aims to improve the prediction of depression in patients with medical illness by examining the role of these factors in a sample of 100 patients with end-stage renal disease. This study will be a contribution to the extent to which psychiatric disorder contributes to the overall health of patients with medical disorders.

Dr.B.Shaw **\$40,789**

Social Phobia: Comorbidity, Treatment and Prevention of impairment

The research seeks to describe individuals who have a disorder known as social phobia. The description aims to analyze a number of

psychopathological dimensions of this disorder and to determine whether cognitive behavioural group treatment is an effective treatment; in addition, the experiment is designed to find out if one can ascertain in advance of treatment which patients are likely to benefit most.

YORK UNIVERSITY

Dr. R. Heinrichs **\$36,731**

Cognitive predictors of employability and social adjustment in chronic psychiatric patients

Dr. Heinrichs seeks to understand how difficulties of cognition influence the rehabilitation and adjustment of severely disturbed psychiatric patients. The study is based upon 200 patients who are undergoing rehabilitation following discharge from a provincial psychiatric hospital. The patients are given an extensive battery of psychological tests; the outcome measures will be measures of employability and adjustment following discharge from the hospital.

Dr.D.Pepler **\$67,000**

Social skills training with aggressive children: an investigation of behavioural change

Aggressive children are given three different kinds of training: social skills training, parent training, and classroom contacts. In previous studies, the behaviour of the children, as assessed by teachers, improved but the children's behaviour as assessed by peers, did not. The study now extends the research by directly investigating changes of behaviour in the playground and examining how the training influences children when they are not under supervision. The objective is to find ways of improving training of socially aggressive children so that they can get on better with their comrades.

C.M.HINCKS TREATMENT CENTRE, TORONTO

Dr.P.Marton **\$12,250**

Persistence of interpersonal dysfunction in clinical depressed adolescents, with and

without personality disorder after recovery from the index condition

Depression is a common psychiatric disorder of adolescents but little is known about the correlates of depression in adolescents. This investigation examines the personality of adolescents with a view to discovering which personality features predispose an individual to depression, which personality features provides protection from depression, and which help recovery once the disease is over. Another part of the investigation is directed to finding how peer relations - important to adolescents - are impaired and whether they continue impaired after recovery.

ONTARIO INSTITUTE FOR STUDIES IN EDUCATION, TORONTO

Dr.J.Weiner \$33,036

Development and evaluation of social skills training program for learning disabled children

Children with learning disabilities are more likely to be rejected by their peers than others. This investigation is intended to examine treatments which will assist learning-disabled children cope with others. Two studies are planned: an analysis of social interaction between learning-disabled children and others; and an evaluation of a social skills training program whose design will be based on the results of the first study.

TORONTO WESTERN HOSPITAL

Dr.P.Carlen \$57,771

Altered sedative-hypnotic drug responses and excitable membrane properties of neurons from aged compared to younger mature rats

Increased life expectation has increased the number of individuals above the age of 65. The older population uses sedative-hypnotic drugs and demonstrates responses to these drugs which differ from those found in younger groups. The aim of this investigation is to examine, in an animal model, the neurobiological basis of age-related drug phenomena - particularly pharmacodynamic changes - which can be attributed to alterations in neurotransmit-

ters and cell membrane properties in aged systems.

**ROTMAN RESEARCH INSTITUTE,
BAYCREST CENTRE, TORONTO**

Dr.D.Stuss \$33,197

Frontal lobe functions

The objectives of this proposal are to advance our theoretical knowledge of the role of the prefrontal lobes and to provide details which are necessary to improve the rehabilitation effort that is put into patients with lesions of the frontal lobes. The specific investigations are designed to show the effects of frontal lobe damage on attention and memory. The frontal lobes are known to be particularly concerned with high mental functions and damage of these areas, which often occurs in traumatic injuries, may have important consequences for an individual. It is important that rehabilitation be based upon a clear understanding of changes produced by frontal lobe lesions.

**QUEEN STREET MENTAL HEALTH
CENTRE, TORONTO**

Dr.E.Collins & Dr.G.Awad \$45,775

A randomized controlled trial of a low dose neuroleptic strategy in patients with treatment refractory schizophrenia

One third of patients who suffer from schizophrenia do not respond well to drug treatments and remain disabled by chronic symptoms. Very often such patients are given high doses of drugs in an attempt to overcome the lack of response. Typically these high drug-doses produce little change in symptoms and, because the drugs may have significant adverse effects, the use of high doses must cause concern. This investigation is an attempt to find out if patients who are refractory will respond to gradual dose reduction and maintenance on low doses with a consequent improvement in both psychotic and behavioural symptoms with as well a reduction in the adverse drug effects.

UNIVERSITY OF WATERLOO

Dr.R.Mills \$ 8,025

Relations between maternal sensitivity and childhood social competence and self-

perception

The aim of the research is to identify patterns of maternal sensitivity in children who are aggressive and socially withdrawn as opposed to children who are socially competent. The aim is to examine relations between these patterns, and mother and child psychological processes, especially the children's perception of competence and control which may be important for social development.

Dr.K.Rubin

\$10,556

The Waterloo longitudinal project: an adolescent follow-up

This investigation follows a group of children first seen in kindergarten. The questions posed by the investigator concern the connexions between behaviour at five years of age, assessed by teachers, and subsequent conduct. The supposition is that withdrawn, shy children may have "internalising" problems as adolescents; conversely aggressive children will have "externalising" problems. This investigation bears on continuity of character from childhood to adolescence.

BROCK UNIVERSITY, ST.CATHERINES

Dr.J.Durrant

\$ 4,918

Relationships between attribution, expectancy and need for achievement among subgroups of ADHD children

Children's ideas about reasons for the outcome of situations in which they find themselves may be important in the development of dysfunction. For example, children who attribute hostile intention to their playmates are more likely to be aggressive. This investigation is designed to examine how patterns of negative attribution are related to social dysfunction in children whose development is at risk.

Dr.Z.Marini

\$14,980

Conflict prevention and conflict resolution strategies in problem and non-problem adolescents

The objective of this investigation is to describe ways of conflict prevention and conflict resolution in adolescents, comparing those with known problems and those without problems, ranging in age from 10-18 years. Learning how to resolve interpersonal problems is an impor-

tant aspect of growing up which present serious difficulties for adolescents. Because poor resolution strategies may persist into adulthood it is important to find out more about how adolescents can cope with conflict and how they learn to resolve conflict with others.

NIPISSING UNIVERSITY COLLEGE, NORTH BAY

Dr.M.Saari

\$ 7,675

Neural and behavioural sparing following monosodium glutamate injection into newborn rats is influenced by the post-weaning rearing environment

The investigation explores the impact upon chemically-induced neural trauma of differences in the rearing environment. The research is designed to show that the toxic effects of common agents, such as monosodium glutamate, may be masked by environmental factors. This hypothesis has implications for screening of potentially toxic compounds, since rearing conditions may influence the course of recovery of functions.

NORTH BAY PSYCHIATRIC HOSPITAL

Dr.P.Carlen & Dr.H.Kern

\$64,145

Prevalence of dementia and its relation to alcoholism in an institutionalized population in Nipissing district

This investigation will include all the institutionalized residents in a district of Northern Ontario. Two major objectives are in view: (1) the determination of the prevalence of dementia in an institutionalized rural population with a specific focus on the relation between dementia and alcohol use, and (2) to investigate the association of excessive alcohol use in interaction with dementia. It is thought that alcohol use is an important factor in psychiatric disorders and this study is aimed particularly at a rural elderly population who are liable to suffer from dementia.

INDIVIDUAL AWARDS 1989-90

MCMASTER UNIVERSITY, HAMILTON Research Associates

Dr. G. Brown

Studies of indolealkylamines and psychoendocrinology of schizophrenia, anorexia nervosa and affective disorders

Dr. Brown's research activities are principally centered on neuroendocrine mechanisms in relation to behaviour, that is to say, the way in which chemical messages operate in the nervous system to control behaviour of individuals. His principle focus of interest is the investigation of the pineal gland and the hormones which it secretes. This gland serves as a timing mechanism; disruptions of body timing are known to occur in a number of psychiatric disorders, for example, depression.

Dr.R.Mishra

Studies on the mechanism of modulatory effect of PLG on dopamine receptors in CNS

The long-term objective of Dr. Mishra's research is to obtain a better understanding of the way in which a group of chemical messengers modulate the activity, in the brain, of receptors on cell surfaces which react to one neurotransmitter: dopamine. It is known that dopamine is an important substance in the causation of both mental and movement disorders. What is not understood is the role of a variety of chemicals which influence the way in which the receptors on cell surfaces respond to the neurotransmitter when it is present.

Dr.M.Pisa

Behavioral disorders in experimental degenerations of the basal ganglia: characterization, localization and treatment

Dr. Pisa is carrying out basic research into the anatomical and biochemical basis of the major psychoses. An emerging concept based upon recent scientific work is that seemingly unrelated disorders, for example, schizophrenia, affective disorder, Huntington's disease, and Parkinson's disease have a common anatomical and biochemical basis. Dr. Pisa is carrying out investigations to show whether this model can provide the basis for explaining apparently dissimilar disorders.

Dr.J.Seggie

A pineal-retinal-hypothalamic theory of depression

Dr. Seggie is a neuroendocrinologist whose research relates to the way in which brain hormones regulate brain activity and consequently behaviour. The current thrust of her research is to examine a theory of depression which takes account of the activity of both the pineal gland and changes in the retina. She is examining this investigation in patients who have affective disorders and in animals.

Dr.H.Szechtman

Dopamine and sensory attentiveness

Dr. Szechtman is carrying out an investigation into the role of the dopamine system in both normal and abnormal behaviour. His investigations are carried out by examining the movement responses of animals under the influences of different drugs which modulate the dopamine system. The drugs he examines are used as treatments for major psychoses in human subjects.

Long-Term Fellows

Dr.M.Miceli

Neuropeptide regulation of circadian rhythms

Dr. Miceli examined biological rhythms which have a period approximating 24 hours (circadian rhythms); little is known about how these rhythms are regulated by the central nervous system. Dr. Miceli is examining whether there is a central pacemaker and whether disorders of the central pacemaker have an influence on affective disorders.

Dr.L.Niles

Brain target sites for melatonin and N-acetyl-5-methoxykynurenamine: modulation of GABAergic function and cyclic nucleotide synthesis

There is evidence that the pineal gland is capable of influencing aspects of brain physiology by secreting the hormone melatonin. Dr. Niles is examining the mechanism by which melatonin influences the brain and how it is converted into other chemicals. The pineal gland and melatonin are thought to be influential in the causation of affective disorders and suicide.

Dr.P.Szatmari

Developmental Neuropsychiatry

Dr. Szatmari is carrying out a number of investigations in the field of child psychiatry. One investigation is an analysis of the follow-up data arising from the Ontario Child Health Study (one of the largest epidemiological investigations of psychiatric disorders in children carried out in North America). Dr. Szatmari is also carrying out investigations of the genetics of autism and, to do so, he is examining children in families where it is thought there has been more than one member suffering from the disorder. (This project is assisted by the Velleman Foundation)

Dr.E.Werstiuk

Biological studies relevant to depression

Dr. Werstiuk is carrying out a number of studies on the biology of depression: toxicity which results from combined treatment with lithium and neuroleptic drugs; disorders in biochemical 24 hour rhythms; and peripheral indicators in blood platelets of central nervous system changes which occur in depression.

Research Fellows

Dr.S.Cassells

Will chronic NGF depletion of rat brain impair learning and cause an Alzheimer-type pathology?

Dr. Cassells is examining a hypothesis that nerve growth factor (NGF) has an ongoing role in the adult mammalian brain and that failure of the nerve growth factor may be part of the cause in Alzheimer's disease. Dr. Cassells is attempting to develop an animal model which will allow him to test this hypothesis.

Dr.J.Fleming

Childhood depression

There is a dearth of follow-up studies to show what happens subsequently to children who become depressed. Dr. Fleming has been using the Ontario Child Health Study to determine the prevalence of depression. She has been able to show that there is comorbidity between depression and anxiety and one question is the extent to which these two entities can be effectively distinguished.

Post-Doctoral Fellows

Dr.D.Ciliska

Evaluation of a "Health Weight" group education program for young females in grades 6-8

Dr. Ciliska's investigation is directed to the value which women place on thinness which leads women to be dissatisfied with their size and appearance and to begin diets which put them at risk for developing eating disorders. Dr. Ciliska is investigating the effects of an educational program delivered to female students in the regular school system, and to a high-risk group of ballet students, with the aim of changing dissatisfaction about body size and appearance. The aim is to provide a psychological and educational basis for women to come to a better judgement about themselves rather than to rely upon dieting.

Dr.H.MacMillan

Research in the prevention and treatment of child abuse; research biological markers in adolescent mood disorders

Dr. MacMillan carried out two investigations: an investigation designed to prevent child abuse; and an investigation of biological markers in adolescent mood disorders. The prevention investigation was a randomized control trial of the efficacy of nursing home visiting as tertiary preventative intervention in families where physical abuse is known to have occurred. The second investigation was an analysis of the use of circulating melatonin in the blood, an index of depression in adolescents.

Research Student

Ms.C.McCormick

Differences in the two brain hemispheres and cognitive abilities

Ms. McCormick is examining the distribution of abilities between the two sectors of the brain in males and females and the cognitive mechanisms which lead to variations in hemispheric specialization.

QUEEN'S UNIVERSITY

Research Fellow

Dr.M.Mauri

Dr. Mauri is carrying out an investigation into the relations between pre-menstrual syndrome (PMS) and sleep disturbances. Dr. Mauri is also attempting to investigate which alterations in sleep can be produced by inducing fluctuations in hormonal levels.

Research Student

Mr.R.Metcalf

Endogenous acetylcholine release in rat basal forebrain

Mr. Metcalf is examining the hypothesis that senile dementia, and the cognitive decline of normal aging, are both associated with changes in cholinergic function in particular parts of the brain.

UNIVERSITY OF OTTAWA

Research Associate

Dr.R.Pivik

Electrophysiological correlates of psychosis/ electrophysiological studies of childhood disorders/developmental studies of arousal thresholds during sleep/neurophysiological studies of sleep/wakefulness and tonic immobility in the rabbit

Dr. Pivik's research is based upon four different lines of work. He is carrying out investigations of sleep and wakefulness in animals and children; part of this investigation is directed towards the activity of hyperactive children. In addition, he is carrying out investigations about oculo-motor and other physiological changes which take place in psychotic disorders. The aim of his investigation is to establish if it would be possible to find a physiological marker for schizophrenia.

Long-Term Fellow

Dr.E.Grof

Neuroendocrinology of affective disorders

Dr. Grof will examine mechanisms to explain some recent findings in mood disorders, especially the occurrence of abnormal and neuroendocrine responses associated with the recurrence of the disorder in individuals who have apparently recovered from an attack of a depressive illness. She is also examining changes which take place in neurochemical mechanisms in individuals who are treated with lithium, which is often prescribed in the treatment of manic-depressive psychosis.

Training Award

Dr.G.LaFleche

Frontal lobe deficits in dementia of the Alzheimer-type

Dr. LaFleche is at Harvard University Medical School where she is learning research techniques in neuropsychology. In particular she is carrying out investigations of the changes which take place in Alzheimer's disorder. She is interested in the changes in behaviour which are found when there is damage to the frontal lobes of the brain due to the disease.

UNIVERSITY OF TORONTO

Research Associate

Dr.U.DeBoni

Fundamental studies on the etiology of Alzheimer's disease

Dr. DeBoni is conducting research into Alzheimer's disease. His investigations are directed at finding out more about the nature of the filaments which are found in the brain cells of those who have the disease, the role of aluminum in producing dementia and, finally, finding out the genetic basis for this disease - which is known to run in families.

Dr.M.Moscovitch

Memory disorders in old people, organic amnesiacs and patients undergoing electro-convulsive therapy (ECT)

Dr. Moscovitch is examining the way in which memory fails in both normal amnesia and in Alzheimer's disease.

Research Fellow

Dr.M.Surbey

Environmental influences in the formation of mother-infant attachments

Environmental factors and cues presented by the infant exert influences on maternal responding to a new-born child. Dr. Surbey is assessing factors in the environment which promote or inhibit the formation of attachments in mothers to their newborn child.

Research Students

Mr.J.Francis

The chronic effects of anticonvulsant and anxiolytic drugs on CNS phenytoin binding sites

Mr. Francis is examining the mechanisms which underly epilepsy and the use of anti-epileptic drugs.

Mr.K.Jarvie

The molecular characterization of the dopamine D₂ receptor

The purpose of this study is to find, in post-mortem tissue from schizophrenic brains, if receptors for dopamine have a structure which can account for the unusual activity of the neurotransmitter dopamine in this disease.

CLARKE INSTITUTE OF PSYCHIATRY

Post-Doctoral Fellow

Dr.P.Fletcher

Brain serotonin and disorders of impulse control

Abnormal metabolism of serotonin in the brain is thought to underly a number of disorders, particularly those concerned with control of impulse. These disorders include eating disorders, anxiety states, obsessive/compulsive disorders, suicide. Such a diversity implies different sub-systems for serotonin in the brain. In this investigation three kinds of study are planned to investigate the role of serotonin in different parts of the brain.

HOSPITAL FOR SICK CHILDREN

Research Scholar

Dr.J.Finegan

Prenatal testosterone and postnatal behaviour and cognition; a statement of proposed research

Dr. Finegan is examining the psychological and educational outcomes which take place in children who have had differing exposure to hormones prenatally.

Senior Research Fellow

Dr.R.Schachar

Dose-response effects of methylphenidate on the focus of attention in hyperactive children

Hyperactive children are often treated with stimulant drugs. They may continue to exhibit problems in both the academic and the social scene despite improvements in behaviour in general. Dr. Schachar is investigating the effect of stimulant drugs on attentional focus and the ability of children to respond to information necessary to carry out tasks. A narrowed focus of attention could be beneficial if it excluded irrelevant information but, if it narrowed too much, then stimulant medication may have adverse effects. Dr. Schachar's investigation is designed to find out more about the desirable-dose of stimulant drugs when used as a treatment for attention disorders.

Post-Doctoral Fellow

Dr.R.Tannock

Dose response effects of methylphenidate and cognitive flexibility in hyperactive children

Hyperactive children are often treated with stimulant medication; the drug may decrease restlessness and improve attention but it may also make a difference to the child's ability to focus on particular stimuli or to alter mental set. Thus the benefits of the treatment may also be accompanied by disadvantages which will influence the child's ability to learn, for example, in a classroom. This investigation will investigate dose response and flexibility of cognitive processing in hyperactive children.

TORONTO GENERAL HOSPITAL

Senior Research Fellow

Dr.R.Joffe

Thyroid hormones and antidepressants

Dr. Joffe is examining the way in which tricyclic antidepressant drugs are effective in the treatment of depressive disorders. Sometimes there is considerable delay in the onset of therapeutic effects once these drugs are given. The aim of the study is to carry out a randomized placebo control comparison of an additional drug which is thought to accelerate the onset of therapeutic actions of tricyclic antidepressants.

Research Fellow

Dr.G.Craigen

Withholding life sustaining therapy: a study of hospital staff and patients' attitudes and their consequences

Dr. Craigen examined ways in which patients and their families can be informed about medical orders or the type usually referred to as "do not resuscitate". His study will examine the hypothesis that full and open discussion of such orders leads to an improvement in the attitude of patients and of the staff who are responsible for looking after them.

Long-Term Fellow

Dr.C.Littlefield

Predicting adjustment and psychopathology in the medically ill

Dr. Littlefield with her collaborators, has initiated several studies to identify factors which will predict the individuals who are most at risk for psychological disturbance when they suffer a medical illness. She is interested in establishing the extent to which previous personality, social support, marital relationships and severity of disease influence well-being and mood. One of the objects of the investigation is to find out the extent to which psychological disorders, such as depression, occur in individuals who are medically ill.

Post-Doctoral Fellow

Dr. M.Olmsted

Predictors of response to cognitive behaviour therapy for major depressive disorder: extent of response and speed of recovery

It is agreed that clinicians will benefit from knowing which patients will respond to particular treatments. This investigation is designed to find the factors that will predict the response of patients to a relatively novel form of therapy for depression: cognitive behavioural therapy.

TORONTO WESTERN HOSPITAL

Research Scholar

Dr.A.Baskys

Alterations in CNS synaptic plasticity and drug interactions in aged rats (a model for Alzheimer's disease)

Dr. Baskys is looking at changes which take place in brain cells as they age to find out some of the factors in the causation of Alzheimer's disease.

Research Fellow

Dr.I.Spigelman

Actions of sedative hypnotic drugs on neuronal ionic channels

Dr. Spigelman is recording the electrical activity of the brain in animals. The objective of making these measurements is to further the understanding of the action of sedative and anticonvulsant drugs on nerve cells in the mammalian central nervous system.

SUNNYBROOK HOSPITAL, TORONTO

Travelling Fellowship

Dr.K.Shulman

Masters program in health policy and management, Harvard University

Dr. Shulman utilized his travelling fellowship to take the courses and pass the examinations for the Masters of Science degree in health policy and management at Harvard University Medical School. In addition he was associated with the

Maine MacLean Hospital in Belmont, Massachusetts and completed an epidemiological study of the outcome of mania in old age in collaboration with investigators in the medical school.

UNIVERSITY OF WESTERN ONTARIO, LONDON

Long-Term Fellow

Dr.S.Brudzynski

Involvement of the central cholinergic system in regulation of behaviour

Dr. Brudzynski's research is focussed on the functional role of the cholinergic system in both normal and abnormal behaviour. This neuro-chemical system is known to be disordered in a number of diseases and is marked by both affective and cognitive changes in behaviour. His investigations make observations both at the cellular and behavioural level.

Research Student

Ms.A.Robson

Low birthweight infants at 5 years

The purpose of the study is to identify factors which are associated with optimal behaviour of attention and cognitive development among a sample of five-year-old children who, at birth, were low-birth-weight infants.

LAURENTIAN UNIVERSITY, SUDBURY

Conference

Dr.D.Adam & Dr.D.Hoehne

Tapping our natural resources: the self-help/mutual aid phenomenon

Dr. Adam (President, Self-Help North) of Laurentian University was given a grant to help put on a conference in Sudbury with the title, "Tapping our natural resources: the self-help/mutual aid phenomenon".

WILFRED LAURIER UNIVERSITY, WATERLOO

Senior Research Fellow

Dr.G.Nelson

An investigation of supportive housing for the chronically mentally disabled in Southern Ontario.

The care and treatment of people with chronic mental disabilities has moved in recent years from psychiatric hospitals to community-based programs. Among the community-based programs is supportive housing. There has been no systematic research on the way in which supportive housing programs work in Ontario. The purpose of this investigation is to develop knowledge about the use of supportive housing for the chronically mentally disabled.

MINISTRY OF COMMUNITY AND SOCIAL SERVICES

LAKEHEAD UNIVERSITY, THUNDER BAY

Dr. Mary-Lou Kelley

\$24,600

A study of care options for people currently on waiting lists for long-term institutional care

The primary objective of the proposed study is to determine the health and social service needs of persons on waiting lists. Phase I of the study will involve the collection of data about the daily activities and needs of seniors. The results will be used to improve the quality of life of elderly persons who are on waiting lists for institutional care.

MCMASTER UNIVERSITY, HAMILTON

Dr.C.Cunningham & Dr.J.Davis

\$45,993

Improving training programmes for residential counsellors of developmentally handicapped persons: mastery modelling versus coping modelling versus coping modelling plus problem solving.

Difficult-to-manage, developmentally handicapped persons are being transferred from large institutions to community homes. The objective of the proposed study is to improve training

programmes for staff of group homes for developmentally handicapped persons. A pretest, post-test and six month follow-up will be conducted to determine which of three training programmes is most effective.

Dr. D.Elliott **\$21,742**

Cerebral specialization in individuals with Down's syndrome

The genetic defect associated with Down's syndrome causes an atypical pattern of brain organization. This atypical pattern may be responsible for a dissociation between speech perception and movement mechanisms in the brain and may lead to difficulties in the performance of tasks which require coordination between these two mechanisms. The objective of the proposed study is to determine whether Down's syndrome persons experience difficulties in the performance of tasks based on verbal cues. This research will provide information useful to educators of Down's syndrome persons.

Dr.D. Maurer **\$40,613**

Visual assessment and its relationship to cognitive status in developmentally handicapped children

This study had several objectives: to design tests suitable for mass screening of the vision of developmentally handicapped children; another objective was to assess the effects of developmental handicap in governing the response of children to vision tests.

QUEEN'S UNIVERSITY, KINGSTON

Dr.S.Burke **\$47,563**

A trial of stress-point preparation for parents of repeatedly hospitalized physically disabled children

This study determined whether a community-based nursing intervention can decrease the distress of parents and improve the functioning of families who have to cope with children who must repeatedly go to hospital. It was found that parents in both the treatment group and the control group found their resources of coping with a chronically ill child less helpful after the hospitalization experience than they had before. However, the nursing intervention group had

significantly less decay in coping behaviour and response to stress.

Dr.J.Holden & Dr.B.McCreary **\$78,815**

Down's syndrome and Alzheimer dementia: clinical evaluation and genetics

This investigation examined the relations between Down's syndrome and Alzheimer's disease. When patients with Down's syndrome come to full maturity they often show changes in the brain which are also found in Alzheimer's disease. An investigation of these patients may lead to further information about the genetic basis of the two disorders.

Dr.J.Holden & Dr.B.White **\$61,580**

X-linked mental retardation: The use of DNA markers in carrier detection

This investigation is part of a genetic study to find out the chromosomal causes of particular forms of mental retardation. Advances were made in techniques of carrier assessment which can be used in counselling families whose members are liable to suffer from X-Linked Mental Retardation; in addition methods were developed for identifying carriers in several other X-Linked disorders.

UNIVERSITY OF TORONTO

Dr.M.Kronld & Dr.A.Csima **\$30,516**

Criteria for optimization of food assistance service to non-institutionalized frail elderly persons

The research was designed to examine the impact of the frequency of Meals on Wheels Service food utilization from delivered meals, the contribution of the quantity consumed to the total diet and the nutritional adequacy of the diet in the light of risk factors common to the elderly.

Dr.V.Marshall **\$54,995**

Long stay patients in an acute care hospital: continuation

The study examines the nature and viability of family support for chronically-ill elderly patients who are in acute care. Particular attention is being paid to changes that take place over a period of time in the efficacy of such support, the stability of family support networks

and the ways in which support places a burden on caregivers (many of whom are elderly themselves).

CLARKE INSTITUTE OF PSYCHIATRY

Dr.M.Konstantareas **\$46,029**

Early developmental backgrounds, cognitive, socioaffective, linguistic and behavioural characteristics of autistic and retarded children: possible interrelationships

Previous studies have not been able to clarify the possible relevance of early development and family histories to the specific characteristics which are seen in autistic individuals when they come for assessment. Although most autistic children are also mentally retarded no systematic attempt has been made to compare or contrast autistic children with mentally retarded children. This study is an investigation of the major characteristics of autistic children.

HOSPITAL FOR SICK CHILDREN

Dr.M.Dennis **\$18,853**

Hydrocephalic children and adolescents: which aspects of their medical condition place them at risk for later problems in language and reading?

The data which have been obtained suggest that hydrocephalic children and adolescents are impaired in relation to their peers in a variety of learning and remembering skills. Details available from the study about reading skills show the associations between the cognitive deficit and the particular kinds of damage which the children have suffered due to hydrocephaly.

Dr.M.Lovett & Dr.R.Barron **\$78,565**

Computer-based training of literacy skills in hearing-impaired children and adolescents: A controlled evaluation

Hearing-impaired children and adolescents may not have the necessary skills to obtain information from newspapers or books. The objective of the proposed research is to evaluate a computer-based literacy training programme for individuals with moderate to profound prelin-

gual hearing loss. Follow-up testing will be conducted with all subjects six months and eighteen months after the completion of literacy training. The proposed study will provide information necessary for the development of more powerful literacy training programmes for hearing-impaired persons.

Dr. S. Mackay-Soroka **\$59,567**

Hearing impaired children's understanding of communication process

This investigation examined the contribution of linguistic and cognitive skills to the communication abilities of hearing impaired children. There is considerable discussion about the best method to teach children with hearing impairment; this investigation will provide results which bear on this discussion and will develop new teaching techniques.

Dr.S.Marcovitch **\$53,725**

Risk factors in the functioning of school-age developmentally handicapped children and their families

Developmentally delayed children are at greater risk for behaviour disorders than are normal children. The objective of the proposed study is to determine the etiology of behaviour disorders in this high risk population. Study results will be used to determine whether children, who now have behaviour disorders, had the most difficult temperaments as preschoolers, the most dysfunctional mother-child relationships and the least family support.

Dr.S.Marcovitch **\$67,263**

Early intervention: help or hindrance? Evaluation of programme, parent and child predictors

Dr. Marcovitch is recruiting additional subjects with developmental disability to measure the effects of infant stimulation programmes after six months and after one year of programme participation. She is assessing family life, the children's development, and the type of early stimulation.

Dr.J.Rovet & Dr.R.Ehrlich

\$70,351

The school-age follow-up of children with congenital hypothyroidism identified by newborn screening in Ontario

A study of school age children followed up a group who were diagnosed to have Congenital Hypothyroidism (detected by neonatal screening) and treated in early life to find out if treatment for this disease leaves residual developmental disorder. In general the children fell in the normal range although some speech and other defects were noted.

SURREY PLACE CENTRE, TORONTO

Dr.L.Atkinson

\$38,130

Cognitive and affective adjustment in mothers with Down's syndrome children and quality of attachment

A follow-up is being made of children with Down's syndrome. The aim is to discover features of the attachment formed between parents and children and to see how attachments alter between the ages of 21 and 45 months. There is not sufficient data about stability of attachments in children with developmental disability; this study is designed to fill this gap.

Dr.M.Feldman

\$40,659

Evaluation of a parent education program for mentally retarded parents and their children

This investigation evaluated the effects of a parent training programme consisting of verbal instruction, modelling and feedback, on the affection and responsiveness of three developmentally handicapped mothers towards their children. Training package increased maternal activity towards the children and the maternal gains were maintained over the following period. The results showed that behavioural instruction can improve the child rearing skills of developmentally handicapped mothers and that the children benefit correspondingly.

Dr.D.Yu & Dr.M.Feldman

\$37,925

Essential community living skills: validation of a criterion-referenced assessment for moderately and mildly developmentally handicapped persons

There has been a significant increase in the number of developmentally handicapped

persons being served in community settings. Developmentally handicapped persons can be taught to perform a variety of domestic and community living skills. The objective of this study is to validate an instrument designed to assess essential community living skills of moderately and mildly developmentally handicapped persons living in the community.

HUGH MACMILLAN MEDICAL CENTRE, TORONTO

Dr.S.Naumann & Dr.S.Jarvis

\$26,070

Mobility training and evaluation for the home or school environment

This study examined ways of training individuals with cognitive delay in the control of electronic devices which enhance ability to manage a Howard wheelchair.

THISTLETOWN REGIONAL CENTRE, TORONTO

Dr.A.Perry & Dr.D.Factor

\$23,838

Stress and family functioning in parents of girls with Rett syndrome.

Rett syndrome is a severe developmental disability which affects females around 24 months of age. To date, there has not been any published research about the effects on families of having a Rett syndrome child. The objective of the proposed study is to determine the level of stress in families with children with Rett syndrome. The results of the proposed study may be useful in clarifying the types of services and supports which are necessary for families of Rett syndrome children.

METROPOLITAN TORONTO ASSOCIATION FOR COMMUNITY LIVING

Dr.D.Morley

\$38,650

The process of generating and maintaining personal supports for individuals who are developmentally handicapped

Personal support networks improve the quality of life of developmentally handicapped persons. However, little is known about the procedures necessary for the establishment and maintenance of these networks. The research will provide guidelines for the establishment and maintenance of personal support networks for developmentally handicapped persons.

**UNIVERSITY OF WESTERN ONTARIO,
LONDON**

Dr.C.Naus **\$38,703**

**Neocortical development and Fetal
Alcohol Syndrome in mice**

This study developed an animal model of the Fetal Alcohol Syndrome in order to identify the components of the human central nervous system that are susceptible to damage by alcohol.

**THAMES VALLEY CHILDREN'S
CENTRE, LONDON**

Dr.I.Schultz **\$9,194**

**Effectiveness of social skills training with
physically handicapped children**

The objective of this investigation was to show the effect of a social programme which was designed to help physically handicapped children manage their interactions with other children of school age.

**CANADIAN MENTAL HEALTH
ASSOCIATION
(ASHLAND INDUSTRIES), LONDON**

Dr.C.Smeekens **\$32,511**

**Vocational interest assessment for people
with handicapping conditions**

Little attention has been paid to the vocational interests of persons with disabilities. The objective of this study is to develop a measure which may be used in assessing these vocational interests. The proposed measure will contain references to work activities that are characteristically performed by persons with handicapping conditions and will be designed to predict work satisfaction. The vocational interest measure will be adapted for computer administration and will be available on audio tape.

UNIVERSITY OF GUELPH

Dr.A.Matthews & Dr.A.Shipsides **\$50,000**

**Homemaker services to the elderly: provider
characteristics and client benefit**

Homemaker services have developed rapidly

and cater primarily to elderly persons. Little attention has been paid to the role, work environment, job stresses, and job satisfaction of homemakers, and the satisfaction of elderly clients with homemaker services. The proposed study will provide information on the training needs of homemakers and on the appropriate role and function of the visiting homemaker programme.

UNIVERSITY OF WINDSOR

Dr.S.Cameron & Dr.R.Orr **\$52,513**

**Caring for developmentally disabled adults
at home: family adaptation through the life
cycle**

The purpose of the proposed research was to analyze family systems in families where a developmentally delayed adult son or daughter is being cared for at home. The research focussed on coping strategies, response to stress and adaptiveness found in these families. The findings of the investigation provide data about the role professionals should take when they wish to assist families who decide to care for a developmentally disabled adult at home; the findings also suggest ways in which agencies can apply resources to help families.